

I. C. 7093

was shipped from the Copper Kettle mine. Ore occurs near a contact of diorite and altered porphyry and contains chalcocite, cuprite, copper carbonates, and some silver.

In New York Canyon are some old prospects that were active in the sixties, and it is said that George Hearst had his first Nevada mining experience here. An arrastra was built in the mouth of the canyon by Judge Sam Bonnefield of Winnemucca in the sixties, in which a small amount of ore was treated.

In Fenstonemaker Canyon, also on the west side of the Stillwater Range, are several antimony prospects that were discovered in the early days, but they have been inactive for many years and there is no record of any production.

TOY DISTRICT

The Toy district is in the northwest corner of Churchill County near the Pershing County boundary line. It lies in a group of low hills in the southwestern part of the Trinity Range and forms the northwest border of the Humboldt River Valley. The only important property in the district from the viewpoint of past production is the Toy tungsten mine.

According to John T. Reid of Lovelock, the first locations in the district were made in 1885 by Paul Trombley for gold and silver, but no deposits of these metals were found and the claims were soon abandoned. In 1907 Peter Anderson and son, A. M. Anderson, of Lovelock, located a group of four claims for gold. In 1908, lessees, while prospecting the Anderson claims, discovered a heavy white concentrate by panning. Some of the rock was sent to David Atkins, a mining engineer of San Francisco, who at the time was interested in the scheelite deposits at Atolia, Calif. Atkins determined the white concentrate to be scheelite, and the claims were purchased by Atkins and associates, who formed the St. Anthony Mines Co., a subsidiary of the Atolia Mining Co. of Calif. The determination of scheelite in the Toy mine is of especial interest, since it was the first one of the many contact metamorphic deposits of tungsten ore subsequently discovered in the United States. The claims were patented and little work was done until 1915, when the price of tungsten concentrates rose considerably owing to the demand imposed by the World War. In 1915, 20 tons of scheelite ore was mined and shipped to Atolia, Calif., for experimental purposes. In the same year a 75-ton gravity-type concentrator was erected at Fanning siding on the main line of the Southern Pacific R. R. 2-1/2 miles from the mine and 2 miles southwest of Toy siding on the same railroad. The claims were developed and the mill was operated in 1916 and 1917 by the company, and for a short time by lessees in 1918, when the price of tungsten dropped and operations were discontinued. It is said that the first shipment of concentrates from the Fanning mill more than paid for the purchase price of the property, the cost of equipping the mine, and the erection of the concentrator. Since 1918 the property has been inactive. The mill was dismantled in 1921.

Toy Mine

The Toy mine, comprising the Tip Top group of five patented claims owned by the Atolia Mining Co., is 4-1/2 miles by road a little south of west from Toy section house and 20 miles southwest of Lovelock, the county seat of Pershing

County. The property is developed by a single-compartment inclined shaft 200 feet deep, several short adits, open-cuts, and other workings totaling about 1,500 feet. The only equipment on the ground is a 50-ton ore bin.

The scheelite occurs in lens-shaped deposits along a limestone-granite contact traceable on the surface along the north side of a small ravine for nearly $3/4$ mile. The limestone is thin-bedded, with a prevailing strike of about S. 70° W. and dipping from 50° to 80° SE. Along the contact three ore bodies have been mined, and the width of the stopes, as seen from the surface, ranges from 3 to 10 feet. As a rule, the ore occurs in the limestone, but in places some ore has been mined within the granite for several feet from the contact. The scheelite is fine-grained associated with garnet, quartz, calcite, diopside, and other contact metamorphic minerals stained with iron oxide near the surface from the alteration of pyrite.

The tailings at the old Fanning mill site have been located as a placer claim by Arthur T. Green and associates, of Lovelock. The tailings have been scattered over a considerable area, but probably about 6,000 tons could easily be gathered for re-treatment if the scheelite content justified a re-treatment operation. Water for former milling operations was obtained from a well at the edge of the Humboldt Sink a short distance from the mill site.

Hardscrabble Claim

The Hardscrabble tungsten claim owned by Herbert Hamlin, of Reno, Nev., is 2 miles west of Toy section house and about the same distance east of the Toy mine. This claim was part of a group located in 1915, when the St. Anthony Mines Co. became active in the district. The claims were allowed to lapse, and the principal claim on which virtually all the work was done was relocated by Hamlin in 1936. At the time of the writer's visit the property was inactive. Development consists of several shallow shafts, the deepest not more than 20 feet, a short adit, and several open-cuts. From the appearance and extent of the workings, no scheelite ore has been produced. There is no equipment on the property.

The formation is thin-bedded shale striking northwest and dipping 40° NE. The shale is intruded by granite, and along the contact the shale is metamorphosed into a fine-grained aggregate of contact minerals, composed chiefly of garnet and epidote. The scheelite is fine-grained and invisible to the unaided eye.

WHITE CLOUD DISTRICT

The White Cloud district is in the vicinity of the canyon of the same name on the west slope of the Stillwater Range, 33 miles northeast of Stillwater and 35 miles southeast of Lovelock, Pershing County, on the Southern Pacific R. R. The camp of Coppereid is in the central part of the district. According to a news item in an early issue of the Reese River Reveille, a newspaper published at Austin, Nev., the district was discovered by Maj. B. B. Bee and Frederick Smith in 1868, but because of difficulties with the Indians it was not organized until 1869. The first work in the district was done in the early seventies by